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ABSTRACT

The purpose of this study was to: (1) examine the relationship of mothers' self-concept measures to children's self concept-measures; (2) analyze change in self-concept measures of children as a function of initial (beginning of school year) self-concept measures of mothers; and, (3) analyze change in self-concept measures of children as a function of change in self-concept measures of mothers. Self-concept measures were collected on 323 deprived mothers and their children. Canonical and factor analyses indicated that self-concept measures of mothers are related to self-concept measures of their children; and that beginning of school year self-concept measures of mothers are related to change scores of their children over the school year. The latter relationship appears to have practical as well as statistical significance. Prior research suggests that even in relatively standardized achievement data the correlation between status and growth appears to be about 0.10. Hence the figure of 0.307 between status and growth appears substantial. (Authors/JM)

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100 Word Abstract

Self-concept measures were collected on 323 deprived mothers and their children. Canonical and factor analyses indicated that self-concept measures of mothers are related to self-concept measures of their children (R = .334); and that beginning of school year self-concept measures of mothers are related to change scores of their children over the school year (R = .307). The latter relationship appears to have practical as well as statistical significance. Prior research suggests that even in relatively standardized achievement data the correlation between status and growth appears to be about .10. Hence the R of .307 between status and growth appears substantial.

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MOTHER-CHILD SELF-CONCEPT TRANSMISSION IN FLORIDA MODEL FOLLOW THROUGH PARTICIPANTS*

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The purpose of this study was to:

1) examine the relationship of mothers' self-concept measures to children's self-concept measures,
2) analyze change in self-concept measures of children as a function of initial (beginning of school year) self-concept measures of mothers, and
3) analyze change in self-concept measures of children as a function of change in self-concept measures of mothers.

Review of the Literature

A considerable body of research exists linking the child's school-related behavior and achievement with his self-concept measures. [Morgan (1961), Wathenberg and Clifford (1966), Davidson and Lang (1960), Fink (1962), Shaw, Edson and Bell (1960), Shaw and Alves (1963),Brookover, Thomas, and Patterson (1964)]. Purkey's (1967) statement seems to capture the essence of the preceeding refrences: "It seems clear that academic underachievement is related to basic personality structure, particularly inadequate concepts of self" (p. 23).

A considerable body of research exists which links self-concept measures to various facets of delinquency and abnormality. On the basis of numerous studies using the Tennessee Self-Concept Scale (TSCS), Fitts and Hammer (1969) concluded that numerous social and personal variables are related to views held about self. People with more positive views of self: (1) "Have fewer problems with authority." (2) "Make generally better adjustments within the correctional institution." (3) "Have more favorable philosophies and attitudes about human nature."

(4) "Score higher on a sentence completion measure of social responsibility." (5) "Show more internal locus of control" (p. 79). A study conducted by Fannin and Clinard (1965) suggested a relationship between self-concepts and varying behavior types.

Within the delinquent or criminal population there are self-concept differences between first offenders and recidivists. This has been supported by two studies, one by Lefeber (1965) and the other by Balester (1956), which concluded that self-concept measures held by first offenders were considerably more positive than those held by recidivists.

Since self-concept measures relate to many facets of life, it appears meaningful to study factors related to the shaping of the child's self-concept.

The literature on educational psychology and child development abounds with statements made relating the importance of parents (and significant others) in the development of the self-concept of the child. The following refrences address themselves to the generally agreed upon principle that parents are in fact important in shaping the self-concepts of their children: [Combs and Snygg (1959), Medinnus and Curtis (1967), Hurley (1967), Bayley & Schaefer (1967), Peterson, et al. (1967)].

Gordon (1959) succinctly summarized the aforementioned refrences: "Their [children's] original images of themselves are formed in the family circle. They develop these notions of who they are in relation to the behavior of the people around them, particularly through the ways in which their behavior is received by the adults who are important to them" (p. 9). He further hypothesized that the child's ". . . original self- concepts are

the result of his interactions with his parents and the meanings he assigns to these experiences" (p. 10).

The significance of the study being reported here lies in its attempt to examine empirically the relationship of self-concept measures of mothers and self-concept measures of children, using two sets of objective measures that were developed independently. Fitts and Hamner (1969) concluded an extensive review of research findings with a question being addressed in this study. They ask how the self-concept develops and what factors and experiences shape it.

Definitions

The following terms are defined for use in this study:

1) Follow Through - a compensatory education program aimed at Head Start graduates. This program is an attempt to extend into the primary grades the advances made by Head Start.
2) Mapping - the process which associates one or more measures in one domain to one or more measures in another domain. A more rigorous mathematical definition was given by Zehna and Johnson (1962). Mothers' self-concept measures and children's self-concept measures were the domains of interest.
3) Target population - "the total group of subjects about whom the experimenter is empirically attempting to learn something." (Bracht and Glass, 1968, p. 440)
4) Accessible population - "the population of subjects that is available to the experimenter for his study." (Bracht and Glass, 1968, p. 440)

Limitations of the Study

Bracht and Glass (1968) defined external validity as "The extent and manner in which the results of an experiment can be generalized to different subjects, settings, experiments, and, possibly, tests" (p. 438). The writer claims generalization from the sample to the accessible population. To do this the assumption must be made that the sample was representative of the accessible population. This is similar to stating that no systematic exclusion or inclusion process was in operation in choosing the sample. External validity, the final inferential leap from the accessible population to the target population, is not claimed. There was no reason to believe that participating classrooms were similar to eligible non-participating classrooms on the personological and ecological dimensions discussed by Bracht and Glass (1968). The target population, the accessible population, and the sample are defined [redacted] on page 7.

Hypotheses

The following hypotheses were tested in this study:

1) Self-concept measures of mothers are related to self-concept measures of their children.
2) Self-Concept measures of mothers recorded at the beginning of the school year are related to change in self-concept measures of their children over the course of the school year.

3) Change in self-concept measures of mothers over the course of the school year is related to change in self-concept measures of their children over the same time period.

Instruments

The instruments used to assess the self-concepts, by way of the self-report were for children, the Children's Self Social Constructs Test (Long, Henderson, and Ziller, 1967); and for parents, the How I See Myself Scale (Gordon, 1968), and the Social Reaction Inventory (Gordon, 1968).

The Children's Self Social Constructs Test. The Children's Self Social Constructs Test, developed by Long, Henderson, and Ziller (1967), gives rise to twelve measures which are esteem, dependency, identification with mother, identification with father, identification with friends, identification with teacher, realism size, realism color, forced choice mother, forced choice father, forced choice friends, and forced choice teacher. Split-halves tests of reliability on the pre-school C.S.S.C.T. factors have revealed reliabilities ranging from .48 to .85 with a median have reliability of .73 (Long, Henderson and Ziller (1967). Long, Henderson, and Ziller (1967) have fully discussed content and construct validation for each factor on the C.S.S.C.T.

The How I See Myself Scale. The How I See Myself Scale developed by Gordon (1968) gives rise to four factors which are Interpersonal Adequacy, Physical Appearance, Autonomy, and Teacher-School. Test-Retest reliabilities for these four factors were reported as .86, .58, .54, and .68 respectively (Gordon, 1968).

The Social Reaction Inventory. The Social Reaction Inventory is a modification of the Rotter Internal-External Scale (Gordon, 1968). The items on the Rotter (1966) Internal-External Scale were rewritten on a fourth-grade vocabulary level so as to make it usable on disadvantaged mothers. The Social Reaction Inventory gives rise to one score which is a measure of perceived Internal vs. External control of environment. Test-Retest reliability on the Social Reaction Inventory was reported as .78 (Gordon 1968). Gordon (1968) discussed content and construct validation of both the How I See Myself and the Social Reaction Inventory.

The Florida Follow Through Model

Home intervention is the key element of the Florida Follow Through Model. The home intervention agent is the Parent Educator. This person typically is a mother from the local community who is highly aware of the social problems facing the children with whom she works. Because she is local, generally she "talks the same language" as the parents she deals with. She functions in many roles. She works with children in the classroom and visits their homes. During her home visitations she presents educational tasks to the mother. She works with the mother until she is confident that the mother can present the task to the child in an appropriate manner. The Parent Educator serves in liaison between the home and the school. The Florida Follow Through Model does not conceive of the Parent Educator as a "teacher aide" in the traditional sense of that position; rather, she is viewed as a viable, active part of the educational process.

Parent educators were rigorously trained in suitable techniques for the collection of pre and post data on parents and children.

Collection of Data

Parent educators collected both the How I See Myself Scale and Social Reaction Inventory data on parents of Follow Through children in September, 1968 (pre measures) and again in May, 1969 (post measures). Teachers and parent educators administered the Children's Self Social Constructs Test to Follow Through children in September, 1968 (pre measures) and again in May, 1969 (post measures). This study utilized data collected in Richmond, Virginia; Philadelphia, Pennsylvania; Jonesboro, Arkansas; Jacksonville, Florida; and Lac Du Flambeau, Wisconsin.

Populations and Sample

The target population of this study consisted of all kindergarten and first-grade children and their mothers in the listed communities from homes which had total incomes below the poverty line. These families met the Federal Government's criteria for Follow Through participation.

The accessible population of this study consisted of the children and their mothers who participated in the Florida Follow Through Model program.

The sample of this study consisted of 323 children and their mothers who participated in the Florida Follow Through Model program and for whom complete sets of data existed. By ethnic groupings, 245 of the children were Negro, 63 of the children were white and 15 of the children were Indian. Male children numbered 167 and the remaining 156 were female.

Statistical Procedures

In order to answer the question of relationship between the two sets of measures as sets, the canonical correlation analysis was used. Cooley and Lohnes (1966) stated: "One application of canonical correlation is to test general hypotheses that relate to two sets of variables" (p. 40). "As developed by Hotelling, the canonical correlation is the maximum correlation between linear functions of the two sets of variables. Several linear combinations of the two sets are frequently possible. Each pair of functions is so determined as to maximize the correlation between the new pair of canonical variates, subject to the restrictions that they be independent of previously derived linear combination" (p. 35). The two simultaneous sets of variables in this study were parents' self-concept measures and children's self-concept measures.

Factor analysis was employed for purposes of identifying inter set mappings. According to Cooley and Lohnes (1966) one use of factor analysis". . . is to find ways of identifying fundamental and meaningful dimensions of a multivariate domain" (p. 153). Both orthogonal (varimax) and oblique (simple loadings) rotational schemes were used to clarify the factor structure.

Presentation and Analysis of Data

Table 1 displays the mean and standard deviation for each pre measure taken on the 323 mothers and children. The results of the canonical correlation analysis for the sets of pre measures on parents and children are displayed in Tables 2, 3, and 4. Two significant ways of generating canonical variates existed. These results supported hypothesis

TABLE 1

Means and Standard Deviations for Seventeen Pre Measures of Self-Concept on Mothers and Children

Variable	Mean	Standard Deviation
Parent:		
1. SRI I/ E	3.755	3.770
2. Autonomy	22.616	6.656
3. Interpersonal Adequacy	61.464	16.342
4. Physical Appearance	26.235	7.857
5. Teacher-School	22.121	5.588
Child		
6. Esteem	12.000	4.376
7. Dependency	3.858	.623
Identification:		
8. Mother	5.845	2.282
9. Father	6.062	2.479
10. Teacher	5.997	2.418
11. Friend	6.384	2.356
12. Realism Color	1.142	1.087
13. Realism-Size	4.845	1.170
Forced Choice:		
14. Mother	1.681	.898
15. Father	1.437	.865
16. Teacher	1.372	.907
17. Friends	1.508	.849

TABLE 2

χ^2 Tests of Successive Latent Roots for Pre Canonical Analysis

Number of Roots Removed	Largest Latent Root Remaining	Corresponding Canonical R	Λ	χ^2	D. F.
0	.112	.334	.718	103.96***	60
1	.100	.317	.808	66.83*	44
2	.061	.246	.899	33.61	30
3	.026	.160	.956	14.01	18
4	.019	.136	.981	5.90	8

*** .0005 level of significance
* .05 level of Significance

TABLE 3

α AND β Weights for the First Significant Pre Canonical R

Parent Measures	α	Child Measures	β
SRI I/E	-.944	Forced Choice-Mother	4.712
Teacher-School	-.553	Forced Choice-Friends	4.616
Physical Appearance	.553	Forced Choice-Teacher	4.294
Autonomy	.047	Forced Choice-Father	3.685
Interpersonal Adequacy	.038	Identification-Mother	.349
		Identification-Teacher	.322
		Identification-Father	- .234
		Identification-Friends	- .181
		Realism Color	.157
		Esteem	- .099
		Dependency	- .002
		Realism-Size	.002

TABLE 4

α and β Weights for the Second Significant Pre Canonical R

Parent Measures	α	Child Measures	β
Interpersonal Adequacy	-1.021	Identification-Father	-.624
Autonomy	.839	Forced Choice-Mother	-.519
Teacher-School	-.593	Dependency	-.354
Physical Appearance	.157	Forced Choice-Teacher	.341
SRI I/E	-.062	Realism-Size	.330
		Identification-Friends	-.226
		Identification-Teacher	.215
		Realism Color	.177
		Identification-Mother	.131
		Esteem	-.090
		Forced Choice-Father	-.079
		Forced Choice-Friends	-.072

one which states: self-concept measures of mothers are related to self-concept measures of children.

In the relationship indicated by the canonical R of .334, the variables contributing most to the parent linear combination were SRI I/E, Teacher-School, and Physical Appearance. Both Autonomy and Interpersonal Adequacy had low α weights when their absolute values were compared to the absolute values of the α's associated with the previously mentioned variables. In the same relationship, the measures of forced choice for mother, friends, teacher, and father contributed most to the child linear combination. The remainder of the measures had β weights which were low in absolute value when compared to the forced choice measures.

It is interesting to note that the variables SRI I/E and Teacher-School had negative weights and the Physical Appearance variable had a positive weight in the generation of the linear function for mothers. The SRI I/E variable was reverse scored, i.e. a high score was associated with an external view and a low score with an internal view. Hence the Teacher-School measure was negatively weighted in the pool of mother variables that maximally correlated with all of the positively weighted measures from the child pool. This seemed strange to the writer in light of the fact that the child measure of forced choice teacher was positively weighted in the generation of the linear function for children. One would expect that mothers with unfavorable attitudes towards teachers and schools would negatively influence their children's attitudes toward teachers.

In the relationship corresponding to the canonical R of .317, all of the parent measures appeared to contribute to the linear combination except perhaps the SRI I/E score. There was no clear cut break between β's of high and low absolute value for the child measures.

The seventeen pre measures were factor analyzed. Six, seven and eight factors were rotated. A relatively clear factor structure resulted with each successive rotation. However, the factor structures indicated only one mapping of a mother self-concept measure into a child self-concept measure. Table 5 displays an orthoginally rotated structure with loadings less than |.30| suppressed.

Factor one was clearly a How I See Myself factor with all How I See Myself variables loading heavily upon it independent of the number of factors rotated or the rotational method employed. Factor two was clearly a Children's Self-Social Constructs identification factor with all identification measures loading heavily upon it, again independent of the number of factors rotated or the rotational method employed. Factors three, four and five reflected the nature of the scores on the forced choice measures. If one or more was high, at least one was low.

Factor six appeared to be a SRI I/E Self Esteem factor. Both of these variables loading positively for six and eight factors rotated to varimax criterion and also for six factors rotated to simple loadings criterion. When seven and eight factors were rotated to varimax criterion, factor six reflected the inverse relationship between SRI I/E measure and realism color. Factor six indicated that mothers who are high on their I/E measure, i.e. externally oriented as opposed to internally, have

TABLE 5

Factor Matrix of Pre Measures Rotated to Varimax Criterion--Eight Factors Rotated

Variable	F1	F2	F3	F4	F5	F6	F7	F8
Parent:								
1. SRI I/E						.30		
2. Autonomy	.76							
3. Interpersonal Adequacy	.87							
4. Physical Appearance	.84							
5. Teacher-School	.80							
Child:								
6. Esteem						.41		
7. Dependency							- .43	
Identification:								
8. Mother	.71							
9. Father	.70							
10. Friends	.70							
11. Teacher	.61							
12. Realism Color						.31		
13. Realism-Size								
Forced Choice:								
14. Mother		-.35	.87					
15. Father					.96			
16. Friends		-.36	-.79	-.45				
17. Teacher		.97						

children who are high on their Self-Esteem measure. This relationship was not in the expected direction because one would expect an internally oriented mother to have children higher in self esteem than would an externally oriented mother. This finding seems to imply that a mother whose view of the world is deterministic has children who have high self esteem. Factor six also indicated that mothers who are high on their I/E measure have children who are low on their realism color measure, i.e. children who are realistic about their color when compared to an adult model. Again one would suspect that mothers whose view of the world was less deterministic would positively influence their children in realism dimensions. This finding seems to suggest the opposite. Factor six was the only factor which produced a mapping from mothers' self-concept measures into children's self-concept measures.

When seven factors were rotated to varimax criterion, factor seven indicated a positive relationship between Self-Esteem scores and Dependency scores. Children that are high in self esteem are also high in dependency. This finding is in agreement with the findings of Long, Henderson, and Ziller (1967) who maintained that less dependency is shown by the less favored group who are also lower in Self esteem. When eight factors were rotated to simple loadings criterion, factor seven reflected a positive relationship between Dependency and Realism Color. Children who are highly dependent tend to be unrealistic about their skin color. Again, this relationship is in the expected direction because one would suspect the more advantaged group who are higher in dependency to be realistic about their color (Long, Henderson, and Ziller, 1967). Furthermore, one would

suspect that an independent child would rely more upon his own judgment than would a dependent child. Realistic views would be most helpful to children who must rely upon their own judgments. Factor seven was item specific for eight factors rotated to varimax criterion.

No variable loaded | .30| or higher on factor eight for eight factors rotated to a varimax criterion; however, Autonomy and Teacher-School loaded positively when the factors were rotated to simple loadings criterion. Where factor one appeared to be a general How I See Myself factor, factor eight seemed to point to a dimension within the How I See Myself Scale. High Autonomy seemed to be related to a positive view of teachers and school. This points to a potentially fruitful area of research.

The rotation of eight factors accounted for 95.91 per cent of all common variance and 57.65 per cent of the total score variance for the 17 measures.

Table 6 displays the mean and standard deviation for each of the pre self-concept measures taken on mothers and each of the difference scores on children's self concept measures. The results of the canonical correlation analysis for the two sets of measures are displayed in Tables 7 and 8. At least one significant way of generating canonical variates existed. This result supported hypothesis two which states: self-concept measures of mothers recorded at the beginning of the school year are related to change in self-concept measures of children over the course of the school year.

TABLE 6

Means and Standard Deviations for Seventeen Pre or Difference Measures of Self-Concept on Parents and Children

Variable	Mean	Standard Deviation
Parent: Pre		
1. SRI I/E	8.755	3.770
2. Autonomy	22.616	6.656
3. Interpersonal Adequacy	61.464	16.342
4. Physical Appearance	26.235	7.857
5. Teacher-School	22.121	5.588
Child-Difference:		
6. Esteem	1.229	5.561
7. Dependency	.127	.658
Identification:		
8. Mother	.043	3.004
9. Father	.186	3.129
10. Friends	- .059	2.927
11. Teacher	.232	3.260
12. Realism Color	- .533	1.250
13. Realism-Size	.009	1.452
Forced Choice:		
14. Mother	.028	1.267
15. Father	- .025	1.079
16. Friends	- .012	1.234
17. Teacher	.009	1.092

TABLE 7

χ^2 Tests of Successive Latent Roots for Pre Difference Canonical Analysis

Number of Roots Removed	Largest Latent Root Remaining	Corresponding Canonical R	Λ	χ^2	D. F.
0	.094	.307	.771	81.86*	60
1	.077	.278	.850	50.89	44
2	.043	.207	.921	25.70	30
3	.026	.161	.963	12.00	18
4	.012	.110	.988	3.81	8

* .05 Level of significance

TABLE 8

α and β Weights for the Significant Pre Difference Canonical R

Parent Measures	α	Child Measures	β
Physical Appearance	.697	Forced Choice-Friends	.931
Autonomy	-.574	Forced Choice-Teacher	.516
Interpersonal Adequacy	.441	Forced Choice-Father	.510
Teacher-School	.265	Identification-Father	-.419
SRI I/E	-.051	Realism Color	.388
		Forced Choice-Mother	.363
		Identification-Friends	-.329
		Identification-Mother	-.296
		Dependency	-.287
		Esteem	-.206
		Realism-Size	.182
		Identification-Teacher	.029

In the relationship indicated by the canonical R of .307, there was no clear cutoff point on parent measures between those associated with α weights high in absolute value and those low in absolute value. The same situation existed for the children's measures.

The five pre measures on parents and the twelve difference measures on children were factor analyzed. Six, seven, and eight factors were rotated. Not enough of the common variance was accounted for and nine factors were also rotated. Both orthogonal and oblique rotational schemes were employed. Clear factor structures emerged for both rotational methods. Mappings from mother's self-concept pre scores to children's self-concept difference measures were not found. Table 9 displays an orthoginally rotated structure with loadings less than |.30| suppressed.

Factor one was clearly a How I See Myself factor with all How I See Myself variables loading heavily upon it, independent of the number of factors rotated or the rotational method employed. Factor two was clearly a Children's Self Social Constructs identification factor with all identification measures loading heavily upon it, again independent of the number of factors rotated or the rotational method employed. The interpretation of factors three, four and five remains the same as in previous analysis. In all cases factor six was either item specific or a loading greater than or equal to |.30| did not exist. For nine factors rotated to simple loading criterion, the Autonomy-Teacher-School dimension was again pointed to as it was in a previous analysis. Factors eight and nine were item specific in all cases.

TABLE 9

Pre Difference Factor Matrix Rotated to Varimax Criterion--Nine Factors Rotated

Variable	F1	F2	F3	F4	F5	F6	F7	F8	F9
Parent:									
1. SRI I/E									
2. Autonomy	.74								
3. Interpersonal Adequacy	.88								
4. Physical Apperance	.86								
5. Teacher-School	.78					-.35			
Child:									
6. Esteem								.39	
7. Dependency									
Identification:									
8. Mother		.58							
9. Father		.65							
10. Friends		.61							
11. Teacher		.61							
12. Realism Color									-.3
13. Realism-Size							.41		
Forced Choice:									
14. Mother			-.41	-.33	-.80				
15. Father				.95					
16. Friends				-.35	.84				
17. Teacher			.95						

The rotation of nine factors accounted for 97.56 per cent of all common variance and 55.73 per cent of the total score variance of the 17 measures.

Table 10 displays the mean and standard deviation for each difference score taken on parents and children. The results of the canonical analysis for the two sets of difference measures are displayed in Table 11. None of the five possible ways of generating canonical variates yielded a significant canonical R. This result did not support the hypothesis that states: change in self-concept measures of children is related to change in self-concept measures of parents.

The seventeen difference measures were factor analyzed. Six, seven, and eight factors were rotated. Not enough of the common variance was accounted for and nine factors were also rotated. Both orthogonal and oblique rotational schemes were employed. Clear factor structures emerged for both rotational methods. Mapping from mothers' self-concept difference scores to children's self-concept difference scores did not emerge. Individual factors will not be discussed because the hypothesis of relationship between the two domains was not supported.

Summary

Three hundred and twenty-three matched sets of data consisting of (1) Children's Self Social Constructs Test, (2) How I See Myself Scale, and (3) Social Reaction Inventory were collected on Florida Follow Through Model participants. Pre measures were collected in September of 1968 and corresponding post measures were collected in May of 1969. These data

TABLE 10

Means and Standard Deviations for Seventeen Difference Measures of Self-Concept on Parents and Children

Variable	Mean	Standard Deviation
Parent:		
1. SRI I/E	.130	3.521
2. Autonomy	.653	7.213
3. Interpersonal Adequacy	1.096	17.060
4. Physical Appearance	.489	7.725
5. Teacher-School	.502	6.109
Child:		
6. Esteem	1.229	5.561
7. Dependency	.127	.658
Identification:		
8. Mother	.043	3.004
9. Father	.186	3.129
10. Friends	- .059	2.927
11. Teacher	.232	3.260
12. Realism Color	- .533	1.250
13. Realism-Size	.009	1.452
Forced Choice:		
14. Mother	.028	1.267
15. Father	- .025	1.079
16. Friends	- .012	1.234
17. Teacher	.009	1.092

TABLE 11

χ^2 Tests of Successive Latent Roots for Difference Difference Canonical Analysis

Number of Roots Removed	Largest Latent Root Remaining	Corresponding Canonical R	Λ	χ^2	D.F.
0	.098	.314	.799	70.62	60
1	.051	.225	.886	38.13	44
2	.039	.197	.933	21.81	30
3	.020	.141	.971	9.36	18
4	.010	.098	.990	3.05	8

were collected in five geographic locations including Richmond, Virginia; Philadelphia, Pennsylvania; Jonesboro, Arkansas; Jacksonville, Florida; and Lac Du Flambeau, Wisconsin.

The Children's Self Social Constructs Test measured the following dimensions of children's self-concept: (1) Esteem; (2) Dependency; (3) Realism Color; (4) Realism Size; (5) Identification with mother; (6) Identification with father; (7) Identification with friends; (8) Identification with teacher; (9) Forced choice mother; (10) Forced choice father; (11) Forced choice friends; and (12) Forced choice teacher. The How I See Myself Scale measured the following dimensions of mothers' self-concept: (1) Autonomy; (2) Interpersonal Adequacy; (3) Physical Appearance; and (4) Teacher-School. The Social Reaction Inventory measured mothers' perceived Internal vs. External control of environment.

The following hypotheses were tested:

1. Self-concept measures of mothers are related to self-concept measures of their children.
2. Self-concept measures of mothers recorded at the beginning of the school year are related to change in self-concept measures of their children over the course of the school year.
3. Change in self-concept measures of mothers over the course of the school year is related to change in self-concept measures of their children over the same period.

A canonical analysis of the described data was used to test these hypotheses . Two of the five possible canonical R's testing the first hypothesis were significant, one (.334) beyond the .005 level and the

other (.317) beyond the .05 level. Although two statistically significant canonical R's emerged, it should be noted that they were of limited practical significance. Upon squaring either of these values, one quickly sees that little more than ten per cent of the variance in one set of measures is accounted for by the other. Apparently, many factors other than those measured on mothers affect the self-concept of children. One of the five possible canonical R's testing the second hypothesis was significant beyond the .05 level. This canonical R (.307) was of statistical significance and apparently of considerable practical significance in light of Thorndike's (1966) finding that even in relatively standardized achievement data the correlation between status and growth appears to be about .10. None of the five possible canonical R's testing the third hypothesis was significant beyond the .05 level.

Factor analysis was used to identify inter-set mappings. Generally, these mappings did not emerge. Apparently, the small proportion of the variance accounted for in children's self-concept measures by mothers' self-concept measures did not allow for extensive mappings between the two sets of measures.

Conclusions

The conclusions made as a result of this study were based upon the two statistically significant results. These conclusions were:

1. Mothers' self-concept measures are related to children's self-concept measures, and
2. Mothers' self-concept measures taken at the beginning of the school year are related to change in children's self-concept measures over the course of the school year.

It should be noted that the variance accounted for in both relationships stated above was small, approximately ten per cent. Futher, this ten per cent figure was inflated due to the nature of the canonical correlation methodology. In the canonical analysis, the measured relationship is maximized. As Soar (1962) pointed out, "the dice are loaded in favor of the canonical" (p. 67). From the standpoint of practical significance, the first conclusion can be drawn with caution and the second with more confidence in light of Thorndike's (1966) findings.

Perhaps the pronounced lack of between-set mappings in the face of statistical between set relational significance provides a clue to the results of this study. The two sets were related, but, on a measure-by-measure basis, few between-set relationships emerged. This finding points to the possibility that the individual measures in the mothers' set were fundamentally incompatible with the measures in the children's set. In retrospect, the lack of measures in both sets with similar meaning and interpretation proved costly in terms of specific measure-by-measure relationships. A careful perusal of the instruments revealed that the measures in the one set cannot be theoretically related or equated with specific measures in the other. The writer now feels that perhaps the mapping search was ill-mounted using the chosen instruments or perhaps any currently available.

Implications for Further Research

Much research remains to be done on problems related to the measurement of self-concept. The pronounced lack of between-set mappings emerging from this study suggests that future researchers dealing with

mother-child self-concept measures be advised to: (1) choose or develop instruments in such a manner so that similar meanings can be attached to measures in both domains, i.e. mothers' and children's; and (2) use multivariate methods which uncover fundamental relationships between domains even when relationships between domains on a measure-by-measure basis do not emerge.

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